

AMENDMENTS

In the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) An electronic blood pressure monitor, having comprising:
a cuff adapted for attachment to a subject and pressurized and depressurized to measure said subject's blood pressure, ~~comprising:~~
a pulse wave detector detecting said subject's pulse wave as said cuff occludes said subject and comprising a waveform parameter calculator calculating a wave form parameter indicative of a feature of a waveform of a pulse wave detected;
a mean blood pressure estimator estimating said subject's estimated mean blood pressure from said pulse wave detected by said pulse wave detector;
a diastolic blood pressure detector detecting said subject's diastolic blood pressure comprising a diastolic blood pressure calculator using said waveform parameter to calculate diastolic blood pressure; and
a systolic blood pressure calculator calculating said subject's systolic blood pressure from said estimated mean arterial pressure, said detected diastolic blood pressure and a waveform of said pulse; and
a waveform distortion corrector correcting said waveform parameter to cancel an error introduced by a distortion of a detected pulse wave relative to said intra-arterial waveform into systolic blood pressure calculated,
wherein said mean blood pressure estimator employs said waveform parameter to determine a reference pressure point within any range from a point of no more than systolic blood pressure to a point no less than a diastolic blood pressure and with reference to said reference pressure point calculates the estimated mean arterial pressure by using said waveform parameter correlated with an average value of an intra-arterial pressure waveform; and

said systolic blood pressure calculator correlates said diastolic blood pressure and said estimated mean arterial pressure to said pulse waveform's maximum and average values and calculates a blood pressure corresponding to said pulse waveform's maximum value point to determine systolic blood pressure.

2-3. (Canceled)

4. (Currently Amended) The electronic blood pressure monitor of claim ~~[[3]]~~ 1, wherein said waveform distortion corrector makes a correction based on a waveform parameter representative of a relationship between intra-arterial pressure and vascular volume obtained when said cuff effects occlusion.

5. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, wherein said mean blood pressure estimator determines as said estimated mean arterial pressure a cuff pressure allowing a pulse wave amplitude to be maximized.

6. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, wherein said mean blood pressure estimator uses an area of an apical portion of a pulse wave amplitude envelope to perform an operation to determine said estimated mean arterial pressure.

7. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, wherein said mean blood pressure estimator uses a waveform parameter indicative of stiffness in a vicinity of a pulse wave rising point to determine said estimated mean arterial pressure.

8. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, further comprising a flat-amplitude detector detecting whether there exists a cuff pressure range free of significant variation in pulse wave amplitude when said cuff pressure is changed, wherein:

when said flat amplitude detector detects that in a cuff pressure range free of significant variation in pulse wave amplitude there exists an estimated mean arterial pressure corresponding to a maximized pulse wave amplitude, ~~this is discarded; and~~ the electronic blood pressure monitor proceeds to determine the systolic blood pressure ~~is determined~~ from one or both of the

estimated mean arterial pressures obtained by an operation based on an area of an apical portion of said pulse wave amplitude envelope and the estimated mean arterial pressure obtained as based on a waveform parameter indicative of stiffness in a vicinity of a pulse wave rising point.

9. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, wherein said systolic blood pressure calculator calculates systolic blood pressure for each pulse wave of a plurality of pulses obtained during measurement and provides an average of such obtained systolic blood pressures as an ultimate systolic blood pressure.

10. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, further comprising a pulse wave average calculator calculating average values of a plurality of pulse waves, respectively, detected by said pulse wave detector, wherein said systolic blood pressure calculator calculates systolic blood pressures for said plurality of pulse waves, respectively, from said average values calculated by said pulse wave average calculator, and determines an average of these calculated systolic blood pressures as an ultimate systolic blood pressure.

11. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, wherein said systolic blood pressure calculator calculates a systolic blood pressure for each pulse waveform of a plurality of pulses obtained during measurement, classifies such results into a plurality of classes within a range of a cuff pressure being applied when a pulse wave is generated, and performs an operation weighting an average value of each class to determine a systolic blood pressure to be a result of the measurement.

12. (Currently Amended) The electronic blood pressure monitor of claim ~~2,3~~ 1 or 4, further comprising a blood pressure variation range display calculating a systolic blood pressure for each pulse wave of a plurality of pulses obtained during measurement, and displaying how a plurality of systolic blood pressures vary in value.

13. (Currently Amended) A method of measuring blood pressure ~~measurement method~~ employing an electronic blood pressure monitor, comprising:

~~having providing~~ a cuff attached to a subject and ~~pressurized and depressurized~~
~~pressurizing and depressurizing the cuff~~ in order to measure the subject's blood pressure;
~~comprising:~~

detecting a pulse wave of the subject occluded by said cuff;
calculating a wave form parameter indicative of a feature of a waveform of a pulse wave
detected;

estimating the subject's estimated mean blood pressure from a pulse wave detected;
using said waveform parameter to calculate ~~detecting~~ the subject's diastolic blood
pressure;

correcting said waveform parameter to cancel an error introduced by a distortion of a
detected pulse wave relative to said intra-arterial waveform into systolic blood pressure
calculated; and

calculating the subject's systolic blood pressure from the estimated mean arterial
pressure, the detected diastolic blood pressure and the detected pulse wave's waveform,

wherein the estimating of mean blood pressure employs said waveform parameter to
determine a reference pressure point within any range from a point of no more than systolic
blood pressure to a point no less than a diastolic blood pressure and with reference to said
reference pressure point calculates the estimated mean arterial pressure by using said waveform
parameter correlated with an average value of an intra-arterial pressure waveform; and

the calculating of systolic blood pressure correlates said diastolic blood pressure and said
estimated mean arterial pressure to said pulse waveform's maximum and average values and
calculates a blood pressure corresponding to said pulse waveform's maximum value point to
determine systolic blood pressure.

14. (New) The electronic blood pressure monitor of claim 1, wherein the waveform
distortion corrector employs an arterial elasticity parameter to correct for distortion.